(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 24 June 2004 (24.06.2004)

PCT

(10) International Publication Number WO 2004/052500 A1

(51) International Patent Classification7: A47L 9/14, B01D 39/18

B01D 39/16,

(21) International Application Number:

PCT/EP2003/013901

(22) International Filing Date: 8 December 2003 (08.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 02027313.2

03007788.7

6 December 2002 (06.12.2002)

EP 4 April 2003 (04.04.2003)

- (71) Applicant (for all designated States except US): EU-ROFILTERS N.V. [BE/BE]; Lieven Gevaertlaan 21, Nolimpark 1513, B-3900 Overpelt (BE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SAUER, Ralf [DE/BE]; Eurofilters N.V., Lieven Gevaertaan 21, Nolimpark 1013, B-3900 Overpelt (BE). SCHULTINK, Jan [NL/BE]; Eurofilters N.V., Lieven Gevaertlaan 21, Nolimpark 1013, B-3900 Overpelt (BE).
- (74) Agents: WEIGELT, Udo et al.; Grünecker, Kinkeldey, Stockmair & Schwanhäusser, Maximilianstrasse 58, 80538 München (DE).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NONWOVEN LAYER FOR A FILTER AND FILTER MEDIUM

(57) Abstract: The invention is directed to a nonwoven layer for a filter, in particular, for a vacuum cleaner bag, wherein at least one region of the nonwoven layer, the region having a predetermined thickness and a predetermined area, has an average pore size smaller than 50 µm and comprises fibers being bonded together such that a movement of the fibers relative to each other in a direction parallel to the surface of the layer is inhibited. The invention is further directed to a filter medium, in particular, for a vacuum cleaner bag, comprising a filter structure wherein a surface or an interface of the filter structure is provided with a filter paper layer having a smaller surface area than the filter structure.

